

DISRUPT DISABILITY

2016 Nominet Trust 100 Winner

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2016

MAKING WHEELCHAIRS MORE ACCESSIBLE WITH OPEN-SOURCE DESIGN

Project URL: <http://disruptdisability.org/>

Project Twitter: [@HackOnWheels](https://twitter.com/HackOnWheels)

Organisation URL: <http://disruptdisability.org/disrupt-disability/>

- Health
- Social Exclusion
- Open Source
- Physical Computing

According to the World Health Organization, over 65 million people need a wheelchair to take part in society and live an independent life. Yet, 8 out of 10 people who need a wheelchair – that's 52 million – are unable to use one, because of a prohibitive price tag and the customisation often needed to suit the user's environment and physical needs.

It's a problem Rachael Wallach knows too well. Rachael was just 18 when an injury left her with impaired mobility, and attending university lectures became a nightmare. Receiving a grant from the Snowdon Trust, she was able to acquire a lightweight bespoke wheelchair, but it was only years later, when working for the government Office for Disability Issues and backpacking around South East Asia and India, that she realised that her £3,000 custom-made wheelchair was simply not accessible for most people around the world.

Inspired by organisations like e-NABLE, which created the first open-source functional prosthetic hand, Rachael established Disrupt Disability through a residency in the Machine Rooms makerspace in London in collaboration with British Council, to create the first open-source, fully customisable wheelchair.

Through Disrupt Disability, Rachael is bringing together a nascent community of makers and wheelchair users to work together to build an online library of free, open-source designs and instructions that could be easily and cheaply adapted to produce customised, low-cost, 3D-printed wheelchairs.

The project is still in its early stages, but Rachael says it's exciting "to see user-led initiatives using advancements to demand and create the innovations they need." To get involved, visit <http://disruptdisability.org/>

Image courtesy of Fran Urbano

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